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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/619,441

07/16/2003

Chang-Chi Lee

MR1715-73

1560

4586

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03/25/2005

ROSENBERG, KLEIN & LEE
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ELLICOTT CITY, MD 21043

EXAMINER

MAYO III, WILLIAM H

ART UNIT

PAPER NUMBER

2831

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/619,441

Applicant(s)

LEE ET AL.

Examiner

William H. Mayo III

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to because Figures 1-2 lack the proper cross-hatching which indicates the type of materials, which may be in an invention. Specifically, the cross hatching to indicate the conductive and insulative materials is improper. The applicant should refer to MPEP Section 608.02 for the proper cross-hatching of materials. Correction is required.

Specification

2. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because in lines 1 & 10-11, the abstract refer to purported merits or speculative applications of the invention and compares the invention with the prior art, which is improper content for the abstract. The applicant should delete the term "improved" and lines 10-11, to provide the abstract with proper content. The abstract, in line 2, recites the term "comprised", which is improper language for the abstract. The applicant should replace the term with the term --has--, to provide the abstract with proper language. Correction is required. See MPEP § 608.01(b).

Claim Objections

5. Claims 1-5 are objected to because of the following informalities: Throughout all of the claims, the applicant recites the terms "the said", which is improper language for the claims. The applicant should select either "the" or "said", to identify previous claimed structure. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 2 recites the limitation "said solid conductors" in line 2, which is confusing and renders the claim indefinite. It is unclear whether the applicant is referring to the previous mentioned "larger solid conductors" or "the smaller solid conductors" or introducing a new solid conductors. If the applicant is referring to the previous mentioned term, then he/she should recite the term with consistency. If the applicant is referring to a new solid conductors, then he/she should make the term more distinguishable.

9. Claim 3 recites the limitation "said solid conductors" in line 2, which is confusing and renders the claim indefinite. It is unclear whether the applicant is referring to the previous mentioned "larger solid conductors" or "the smaller solid conductors" or introducing a new solid conductors. If the applicant is referring to the previous mentioned term, then he/she should recite the term with consistency. If the applicant is referring to a new solid conductors, then he/she should make the term more distinguishable.

10. Claim 4 recites the limitation "said solid conductors" in line 2, which is confusing and renders the claim indefinite. It is unclear whether the applicant is referring to the

previous mentioned "larger solid conductors" or "the smaller solid conductors" or introducing a new solid conductors. If the applicant is referring to the previous mentioned term, then he/she should recite the term with consistency. If the applicant is referring to a new solid conductors, then he/she should make the term more distinguishable.

11. Claim 5 recites the limitation "said solid conductors" in line 2, which is confusing and renders the claim indefinite. It is unclear whether the applicant is referring to the previous mentioned "larger solid conductors" or "the smaller solid conductors" or introducing a new solid conductors. If the applicant is referring to the previous mentioned term, then he/she should recite the term with consistency. If the applicant is referring to a new solid conductors, then he/she should make the term more distinguishable.

Treatment of Claims

12. The examiner assumes that the applicant is referring to both the larger and smaller solid conductors.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Harrison (Pat Num 6,388,188). Harrison discloses a cable (Figs 1-20) that may be utilized as an audio cable (Col 1, lines 13-15). Specifically, with respect to claim 1, Harrison discloses an audio signal cable (Fig 18) consisting of larger solid conductors (plurality of 11), wherein each conductor (plurality of 11) is covered with insulation (12a) to form individual cables (plurality of 1), smaller solid conductors (plurality of 11a) wherein each smaller conductor (plurality of 11a) is covered with insulation (12a) to form individual cables (1a), and wherein a conductor (as shown in Fig 5b) may comprise a plurality of tinsel wires (11), wherein each tinsel wire (11) may be covered with insulation (12) to form individual cables (1 as shown in Fig 5b, Col 5, lines 5-7); wherein the cables (1, 1a, and 1 as shown in Fig 5b) may be of differing quantity and size (Col 5, lines 5-7) are combined into a multiple core conduit (plurality of conductors), and wherein an insulation may be placed around the said multiple core conduit (Col 16, lines 28-31) to form multiple core signal cables (71); and wherein filler elements (plurality of outside 3) are disposed laterally along the said multiple core signal cables (71) to form a multiple core composite cable (72), wherein an insulation (i.e. jacket) may be placed around the said multiple core composite cable (72) to complete the audio signal cable (Fig 18).

With respect to claim 2, Harrison discloses that the larger and smaller solid conductors (1 & 1a) may have a cross-sectionally circular solid conductors (Fig 18, Col 5, lines 5-7).

With respect to claim 3, Harrison discloses that the larger and smaller solid conductors (1 & 1a) may have solid conductors are flat, thin solid conductors (as shown in Fig 5b, Col 5, lines 5-7). With respect to claim 4_{2 or 3}, Harrison discloses that the larger and

smaller solid conductors (1 & 1a) may be of differing larger and smaller diameters and disposed in unequal quantities (Fig 18, Col 5, lines 5-7).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

17. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison (Pat Num 6,388,188) in view of Eichmann et al (Pat Num 6,495,763, herein referred to as Eichmann). Harrison discloses a cable (Figs 1-20) that may be utilized as an audio cable (Col 1, lines 13-15) as disclosed above with respect to claim 1. Specifically, Harrison discloses that the larger and smaller solid conductors (1 & 1a) may be of differing larger and smaller diameters (Fig 18, Col 5, lines 5-7 & 39-43).

However, Harrison doesn't specifically disclose the larger and smaller solid conductors, wherein the diameter of the larger solid conductors is two to three times that of the smaller solid conductors (claim 5).

Eichmann teaches a cable (Figs 1-9) that may be utilized as an audio cable (Col 1, lines 7-16) which comprises conductors wherein the return conductor has a larger diameter than the signal conductor thereby resulting in a balanced flow of electrons, enhanced electron movement, and improved signal transmission (abstract).

Specifically, with respect to claim 5, Eichmann teaches that the cable (Fig 2) comprises a plurality of conductors (8 & 6), wherein the conductors (8 & 6) that may round, square, flat, rectangular, tubular, etc, (Col 3, lines 1-5), wherein the return core (8) has a overall diameter that is two times greater than the signal conductor (6, Col 4, lines 10-13, i.e. 1-2.778 times greater).

With respect to claim 5, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the cable of Harrison to comprise the conductor configuration wherein the diameter of the larger solid conductors is two to three times that of the smaller solid conductors as taught by Eichmann because Eichmann teaches that such a configuration results in a balanced flow of electrons, enhanced electron movement, and improved signal transmission (abstract) and since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are Cardas (Pat Num 4,628,151), Ono et al (Pat Num 5,976,070), Lee (Pat Num 4,777,324), Dunlavy (Pat Num 5,510,578), Peterson et al (Pat Num 5,516,986), Naylor et al (Pat Num 5,491,299), and Friesen et al (Pat Num 6,194,663), all of which disclose various cables.


Communication

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2831

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William H. Mayo III
Primary Examiner
Art Unit 2831

WHM III
March 15, 2005